

Leucoderma in early syphilis

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Introduction

Pigmentary changes are not uncommon in various forms of non-venereal treponematoses. Leucoderma colli and leucomelanoderma are occasionally seen in venereal syphilis (Willcox, 1964; Pandhi *et al.*, 1975). Disseminated leucoderma as a manifestation of early syphilis is almost unknown. We recently saw two cases with widespread lesions of leucoderma which were later discovered to be caused by early syphilis. Because of unusual clinical presentation, the patients are reported here.

Material and methods

CASE 1

A 25-year-old man first noticed depigmented lesions on the face and neck; a few days later he developed asymptomatic erythematous papular and scaly lesions over the trunk and extremities, and moist papular lesions on the scrotal skin. Two weeks later when he reported to us, some of the trunk lesions had also become depigmented. Four months earlier after an extramarital sexual exposure, the patient had developed a genital sore that had healed after one month. There was no history of genital lesions, skin rash, or miscarriage in the wife.

Examination

Depigmented lesions with an irregular confrontation were present on the face, neck, trunk, and the extremities (Figs 1 and 2); the palms and the soles showed depigmented areas interspersed between pigmented macules (Figs 3 and 4). Erythematous scaly papular lesions on the trunk and a few moist papular lesions on the scrotum were also seen. Cervical, axillary, epitrochlear, and inguinal lymph nodes were enlarged, discrete, firm, non-tender, and freely mobile. Systemic examination did not reveal any abnormality.



Fig. 1 Case 1 showing depigmented lesions on the trunk.

Treponema pallidum could be demonstrated from the moist papular lesions. The serum Venereal Diseases Reference Laboratory (VDRL) test was positive at a dilution of 1:32. Skin biopsy from one of the depigmented lesions showed the absence of melanin in the epidermis. An intense perivascular plasma cell infiltrate (Fig. 5) was present in the dermis. A few lymphocytes and histiocytes were also seen. There was no evidence of vasculitis but in places the capillary endothelium appeared swollen.

CASE 2

A 35-year-old man, presented with widespread, asymptomatic depigmented macular and erythe-

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Fig. 2 *Depigmented lesions on the hands and the trunk of Case 1 with perifollicular pigmentation beginning after three weeks of tetracycline treatment.*



Fig. 3 *The palms showing hyperpigmented and depigmented macules (Case 1).*



Fig. 4 *The soles showing depigmented and hyperpigmented areas (Case 1).*

matous papular lesions of three months' duration. Depigmented macular lesions first appeared on the feet and in two to three weeks they had spread to the trunk and the upper extremities. He received psorline tablets for one month, but without any improvement. While being treated with psorline, the patient developed asymptomatic erythematous maculopapular lesions on the trunk and the extremities. He gave a history of developing a painless ulcer on the glans penis six months earlier after an extramarital exposure with a prostitute. The ulcer had healed in one month. There was no history of genital lesions, skin rash, or miscarriage in the wife.

Examination

Erythematous papular and depigmented macular lesions were seen on the trunk, the extremities, and dorsa of the feet (Figs 6 and 7). Axillary, epitrochlear, and inguinal lymph nodes were enlarged, discrete, firm, non-tender, and freely mobile. Systemic examination was normal.



Fig. 5 Low power microphotograph showing perivascular plasma cell infiltrate in the dermis and absence of melanin in the epidermis. Haematoxylin and eosin. $\times 40$.

T. pallidum could not be demonstrated, the serum Venereal Disease Reference Laboratory (VDRL) test was positive at a dilution of 1:64 in the patient and 1:32 in his wife. Skin biopsy from a depigmented macular lesion revealed features similar to those seen in Case 1.

Treatment

Both patients being hypersensitive to penicillin, tetracyclines in daily doses of 2 g were given for a period of three weeks.

Result

In both the patients, pigment started appearing soon after completion of the treatment and had almost completely covered the depigmented areas within two months. The lymph nodes had regressed and the VDRL titre had come down in both patients to 1:8 at two months and 1:4 at three months and then to 1:2 and 1:4 in Case 1 and Case 2 respectively at six months.

Comment

The presence of asymptomatic erythematous squamous papular lesions, the demonstrability of *T. pallidum* in Case 1, generalised lymphadenopathy, strongly positive blood serology, and expected response (clinical and serological) to tetracycline treatment

are sufficient evidence to show that our patients were suffering from early symptomatic syphilis. The histological features of depigmented lesions, their association with classical lesions of secondary syphilis, and their response to treatment suggest that the depigmented areas were also a manifestation of early syphilis.

Leucoderma colli is a well recognised feature of early or late syphilis (Willcox, 1964; King and Nicol, 1975). Pigmentary changes elsewhere on the body are also known to occur at a late stage in all treponematoses—venereal syphilis, endemic syphilis, yaws and pinta (Willcox, 1964). Widespread leucoderma as seen in our patients has to our knowledge not been reported in early syphilis.

The importance of recognising this manifestation of early syphilis is obvious. One of the patients had indeed been treated for vitiligo before the true nature of the disease was recognised because of the subsequent development of asymptomatic erythematous squamous rash. In many parts of the world, including



Fig. 6 Hyperpigmented and depigmented areas on the arms (Case 2).

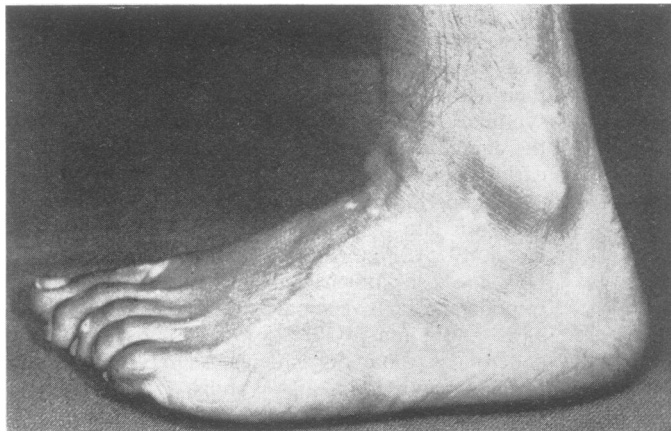


Fig. 7 Hyperpigmented and depigmented areas on the feet (Case 2).

India, vitiligo is a common dermatological problem; syphilitic leucoderma would constitute a very small proportion of depigmentary dermatoses. The rapid evolution or any unusual morphological features of vitiliginous lesions may justify a search for a syphilitic aetiology.

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